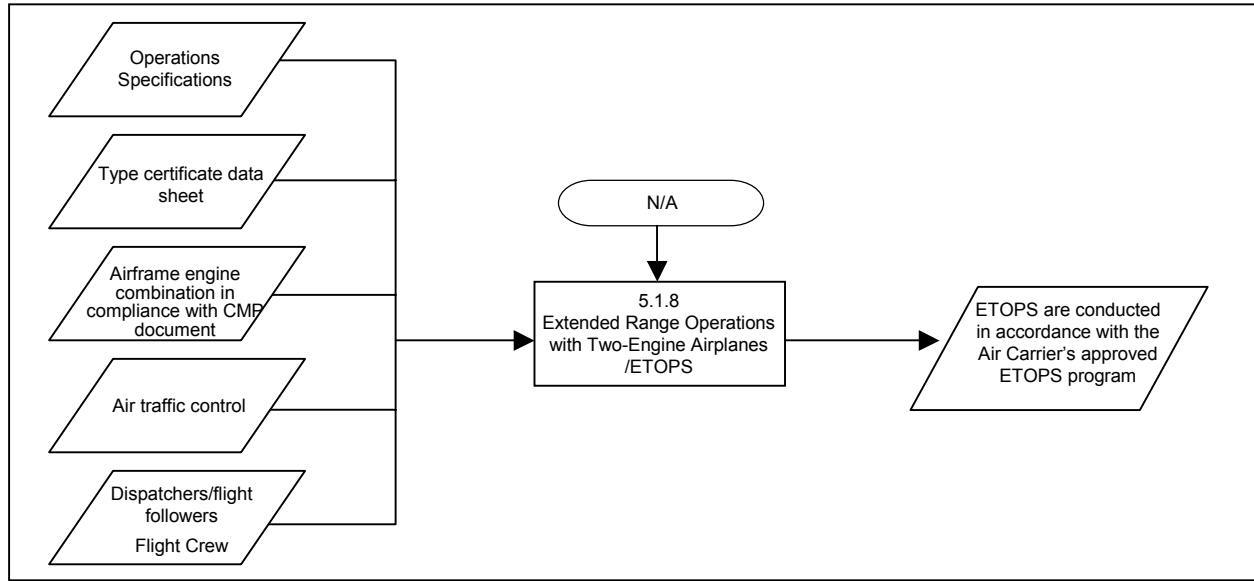


# Safety Attribute Inspection (SAI) Job Aid



## ELEMENT SUMMARY INFORMATION

**Element:** 5.1.8 Extended Range Operations with Two-Engine Airplanes (ETOPS)

**Purpose of the Element (Air Carrier Responsibility):** To ensure continuous safe and reliable operations in accordance with the Air Carrier's ETOPS authorization.

**Objective (FAA Responsibility):** To determine if the air carrier's ETOPS program includes safety attributes.

### Inputs:

- Operations Specifications
- Type Certificate Data Sheet (Type Design)
- Airframe Engine Combination that Complies with the Configuration, Maintenance, and Procedures (CMP) Document
- Air Traffic Control (ATC)
- Dispatchers/Flight Followers
- Flight Crew

### Outputs:

- ETOPS are conducted in accordance with the Air Carrier's approved ETOPS Program

### Performance Measures:

- All ETOPS are conducted in accordance with the Air Carrier's approved ETOPS Program.

# Safety Attribute Inspection (SAI) Job Aid

## **SRR:**

There are no specific regulatory requirements. ETOPS authorization is a deviation from 14 CFR 121.161(a). (Airplane limitations: Type of route)

## **Other CFRs and/or FAA Guidance**

- 14 CFR 121.161(a) “Airplane Limitations: Type of Route”
- 14 CFR 121.197 Airplanes: Turbine engine powered: Landing limitations: Alternate airports.
- FAA Order 8400.10, VOL 3, Chap 5 Aircraft Dispatcher Training and Qualification Programs.
- FAA Order 8400.10, VOL 3, Chap 11 Operator Record Keeping.
- HBAAT 98-21 Relief of Icing Fuel Penalties Associated with Critical Fuel Calculations for ETOPS.
- AC 120-42: Extended Range Operations with Two Engine Airplanes (ETOPS)
- Refer to Advisory Circulars using a search engine (such as ATP Navigator or Summit)

# Safety Attribute Inspection (SAI) Job Aid

## SRR SPECIFIC INFORMATION

There are no specific regulatory requirements.

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### SECTION 1 - RESPONSIBILITY ATTRIBUTE

**Objective:** To determine if there is a clearly identifiable, qualified, and knowledgeable person who is accountable for the quality of the ETOPS program.

*To meet this objective, the inspector will accomplish the following tasks:*

1. Identify the person who is responsible for the quality of the ETOPS program.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume, if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the ETOPS program with the person.

*To meet this objective, the inspector will answer the following questions:*

|   |   |  |
|---|---|--|
| 1. Is there a clearly identifiable person who is answerable for the quality of the ETOPS program?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If yes, provide the name:<br>If no, explain: |
| 2. Does the person understand the procedures associated with the ETOPS program?                     | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 3. Does the person understand the controls associated with the ETOPS program?                       | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 4. Does the person understand the interfaces associated with the ETOPS program?                     | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 5. Does the person understand the process measurements associated with the ETOPS program?           | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 6. Is the responsibility of this position clearly documented in the air carrier's Manual(s)?        | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 7. Are the qualification standards for this position clearly documented?                            | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 7a. Are the qualification standards for this position appropriate for the duties that are assigned? | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 8. Does the person meet the qualification standards?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 9. Does the person acknowledge that he/she has responsibility for the ETOPS program?                | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 10. Does the person know who has authority to establish and modify the ETOPS program?               | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### SECTION 2 - AUTHORITY ATTRIBUTE

**Objective:** To determine if there is a clearly identifiable, qualified, and knowledgeable person with the authority to establish and modify the ETOPS program.

*To meet this objective, the inspector will accomplish the following tasks:*

1. Identify the person who has the authority to establish or modify the ETOPS program.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume, if appropriate).
4. Review the appropriate organization chart.
5. Discuss the ETOPS program with the person.

*To meet this objective, the inspector will answer the following questions:*

|   |   |  |
|---|---|--|
| 1. Is there a clearly identifiable person who has authority to establish and modify the Air Carrier's policies for the ETOPS program? | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If yes, provide the name:<br>If no, explain: |
| 2. Does the person understand the procedures associated with the ETOPS program?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 3. Does the person understand the controls associated with the ETOPS program?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 4. Does the person understand the interfaces associated with the ETOPS program?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 5. Does the person understand the process measurements associated with the ETOPS program?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 6. Is the authority of this position clearly documented in the air carrier's Manual(s)?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 7. Are the qualification standards for this position clearly documented?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 7a. Are the qualification standards for this position appropriate for the duties that are assigned?                                   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 8. Does the person meet the qualification standards?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 9. Does the person know they have authority for the ETOPS program?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 10. Does the person acknowledge that he/she has responsibility for the ETOPS program?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |
| 11. Are the procedures for delegation of authority clearly documented for the ETOPS program?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain:                              |

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### SECTION 3 - PROCEDURES ATTRIBUTE

**Objective:** To determine if the air carrier has documented procedures for accomplishing the ETOPS program.

*To meet this objective, the inspector will accomplish the following tasks:*

1. Review the documented instructions and information related to the ETOPS program to ensure that they contain who, what, where, when, and how.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI.
3. Discuss the ETOPS program with appropriate personnel to gain an understanding of the procedures.
4. Observe the ETOPS program to gain an understanding of the procedures.

*To meet this objective, the inspector will answer the following questions:*

1. Do written procedures exist to achieve the desired result of the ETOPS program:

*1.1 Does the Air Carrier have written procedures to ensure that only ETOPS-qualified crews are assigned to ETOPS?*

☐ YES      If no, explain:  
☐ NO

*1.2 Does the Air Carrier have written procedures to ensure that only ETOPS-qualified dispatchers are assigned to ETOPS?*

☐ YES      If no, explain:  
☐ NO  
☐ N/A FOR SUPPLEMENTAL

*1.3 Does the Air Carrier have written procedures to ensure that only ETOPS-trained flight followers are assigned to ETOPS?*

☐ YES      If no, explain:  
☐ NO  
☐ N/A FOR FLAG & DOMESTIC

*1.4 Does the Air Carrier have written procedures to ensure that only ETOPS-qualified airplanes are assigned to ETOPS?*

☐ YES      If no, explain:  
☐ NO

*1.5 Does the Air Carrier have written procedures to ensure that planned ETOPS routes are useable?*

☐ YES      If no, explain:  
☐ NO

*1.6 Does the Air Carrier have written procedures to ensure that an airplane meets ETOPS requirements before initiating an ETOPS route segment?*

☐ YES      If no, explain:  
☐ NO

*1.7 Does the Air Carrier have written procedures for obtaining the latest information before entering the ETOPS route segment to ensure that the enroute alternate airports are suitable?*

☐ YES      If no, explain:  
☐ NO

*1.8 Does the Air Carrier have written procedures for identifying ETOPS expanded reporting requirements?*

☐ YES      If no, explain:  
☐ NO

2. Do the procedures identify: who, what, where, when and how?

☐ YES      If no, explain:  
☐ NO

3. Are the procedures in compliance with the CFR(s)?

☐ YES      If no, explain:  
☐ NO

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### SECTION 3 - PROCEDURES ATTRIBUTE

|   |  |
|---|--|
| 4. Do the procedures conform to other written guidance? (E.g., Operations Specifications, FAA Orders, Airworthiness Directives, Advisory Circulars, Handbook Bulletins, Directives, and Manufacturers Recommendations).                                     | <input type="checkbox"/> YES      If no, explain:<br><input type="checkbox"/> NO   |
| 5. Does the air carrier have the resources to support the written procedures for the ETOPS program?   | <input type="checkbox"/> YES      If no, explain:<br><input type="checkbox"/> NO   |
| 6. If alternate procedures exist for use during irregular conditions, do they achieve the same desired result as the primary procedures so that an equivalent level of safety is maintained? (E.g., a manual system used as a result of equipment failure). | <input type="checkbox"/> YES If no or N/A, explain:<br><input type="checkbox"/> NO<br><input type="checkbox"/> N/A, No alternate procedures exist for this element |
| 7. Are the procedures published in different manuals relating to the ETOPS program consistent?  | <input type="checkbox"/> YES      If no, explain:<br><input type="checkbox"/> NO   |
| 8. Does the air carrier have a documented method for assessing the impacts of procedural changes to the ETOPS program?  | <input type="checkbox"/> YES      If no, explain:<br><input type="checkbox"/> NO   |

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### SECTION 4 - CONTROL ATTRIBUTE

**Objective:** To determine if checks and restraints are designed into the ETOPS program to ensure a desired result is achieved.

*To meet this objective, the inspector will accomplish the following tasks:*

1. Review the documented instructions and information related to the ETOPS program.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI.
3. Discuss the ETOPS program with appropriate personnel to gain an understanding of the controls.
4. Observe the ETOPS program to gain an understanding of the controls.

*To meet this objective, the inspector will answer the following questions:*

1. Are the following checks and restraints built into the ETOPS program:

*1.1 Does the Air Carrier have a system in place that prevents non-ETOPS qualified crewmembers from being assigned to ETOPS?*

☐ YES      If no, explain:  
☐ NO

*1.2 Does the Air Carrier have a system in place that prevents non-ETOPS qualified dispatchers from being assigned to ETOPS?*

☐ YES      If no or N/A, explain:  
☐ NO  
☐ N/A

*1.3 Does the Air Carrier have a system in place that prevents non-ETOPS trained flight followers from being assigned to ETOPS?*

☐ YES      If no or N/A, explain:  
☐ NO  
☐ N/A

*1.4 Does the Air Carrier have a system in place that prevents non-ETOPS airplanes from being assigned to ETOPS?*

☐ YES      If no explain:  
☐ NO

*1.5 Does the Air Carrier have a system in place that verifies that planned ETOPS routes are useable?*

☐ YES      If no, explain:  
☐ NO

*1.6 Does the Air Carrier have a system in place to verify that the airplane continues to meet ETOPS equipment requirements before initiating an ETOPS route segment?*

☐ YES      If no, explain:  
☐ NO

*1.7 Does the Air Carrier have a system in place to verify that enroute alternate airports are suitable prior to entering an ETOPS route segment?*

☐ YES      If no, explain:  
☐ NO

*1.8 Does the Air Carrier have a system in place to verify that it complies with ETOPS expanded reporting requirements?*

☐ YES      If no, explain:  
☐ NO

2. Do the checks and restraints ensure the desired result is achieved for the ETOPS program?

☐ YES      If no, explain:  
☐ NO

3. Does the air carrier have a documented method for assessing the impacts of any changes made to the checks and restraints in the ETOPS program?

☐ YES      If no, explain:  
☐ NO



# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### **SECTION 4 - CONTROL ATTRIBUTE**

4. Does the air carrier have the resources to support the checks and restraints for the ETOPS program?

☐ YES

☐ NO

If no, explain:

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

**Objective:** To determine if the air carrier measures and assesses the ETOPS program, to identify and correct problems or potential problems.

*To meet this objective, the inspector will accomplish the following tasks:*

1. Review the documented instructions and information related to the ETOPS program.
2. Discuss the ETOPS program with appropriate personnel to gain an understanding of the process measures.
3. Observe the ETOPS program to gain an understanding of the process measures.

*To meet this objective, the inspector will answer the following questions:*

1. Does the air carrier's ETOPS program include the following process measurements?

|  |   |                 |
|--|---|-----------------|
| 1.1 Does the Air Carrier record attempts to assign non-qualified crewmembers to ETOPS?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 1.2 Does the Air Carrier record attempts to assign non-qualified dispatchers to ETOPS?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO<br><input type="checkbox"/> N/A FOR SUPPLEMENTAL    | If no, explain: |
| 1.3 Does the Air Carrier record attempts to assign untrained flight followers to ETOPS?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO<br><input type="checkbox"/> N/A FOR FLAG & DOMESTIC | If no, explain: |
| 1.4 Does the Air Carrier record attempts to assign non-ETOPS airplanes to ETOPS?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 1.5 Does the Air Carrier record instances in which a planned ETOPS route became unusable?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 1.6 Does the Air Carrier's voluntary disclosure program provide for reporting instances of non-compliance with its ETOPS program?          | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 1.7 Does the Air Carrier record instances in which crewmembers were not apprised of changes in the suitability of enroute alternates?      | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 2. Does the air carrier document their process measurement methods and results?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 3. Are the air carrier's process measurements effective?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 4. Does the air carrier use their process measurement results to improve their programs?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 5. Are the process measurement results accessible to the FAA?  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |
| 6. Does the organization that conducts the process measurement have direct access to the person with responsibility for the ETOPS program? | <input type="checkbox"/> YES<br><input type="checkbox"/> NO   | If no, explain: |

# Safety Attribute Inspection (SAI) Job Aid

## 5.1.8 ETOPS Program

### **SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE**

|  |  |
|--|--|
| 7. Does the air carrier have the resources to support the process measurement for the ETOPS program? | <input type="checkbox"/> YES      If no, explain:<br><input type="checkbox"/> NO |
|--|--|

# Safety Attribute Inspection (SAI) Job Aid

|  |   |                 |
|--|---|-----------------|
| <b>5.1.8 ETOPS Program</b>   |   |                 |
| <b>SECTION 6 - INTERFACES ATTRIBUTE</b>  |   |                 |
| <b>Objective:</b> To determine if the air carrier identifies and manages the interactions between the ETOPS program and the other element processes within the air carrier organization. |   |                 |
| <i>To meet this objective, the inspector will accomplish the following tasks:</i>  |   |                 |
| 1. Review the documented instructions and information related to the ETOPS program.  |   |                 |
| 2. Discuss the ETOPS program with appropriate personnel to gain an understanding of the interfaces.  |   |                 |
| 3. Observe the ETOPS program to gain an understanding of the interfaces.   |   |                 |
| <i>To meet this objective, the inspector will answer the following questions:</i>  |   |                 |
| 1. Are the following interfaces identified for the ETOPS program:  |   |                 |
| 1.1 <i>Appropriate Operational Equipment (Element 1.1.2)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.2 <i>Airworthiness Release or Log Book Entry (Element 1.2.1)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.3 <i>Maintenance Log/Recording Requirements (Element 1.2.3)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.4 <i>Airman Duties/Flight Deck Procedures (Element 3.1.3)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.5 <i>Operational Control (Element 3.1.4)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.6 <i>Aircraft Performance Operating Limitations (Element 3.1.9)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.7 <i>Special Navigation Areas of Operation (Element 5.1.7)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.8 <i>Safety Program (Ground and Flight) (Element 7.2.1)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.9 <i>Dispatch or Flight Release (Element 3.2.1)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.10 <i>Flight/Load Manifest/Weight and Balance Control (Element 3.2.2)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.11 <i>MEL/CDL Procedures (Element 3.2.3)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.12 <i>Manuals (System 2.0)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.13 <i>Personnel Training and Personnel Qualifications (System 4.0)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 1.14 <i>Airman and Crewmember Flight, Rest, and Duty Time (System 6.0)</i>   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |

# Safety Attribute Inspection (SAI) Job Aid

|  |   |                 |
|--|---|-----------------|
| <b>5.1.8 ETOPS Program</b>   |   |                 |
| <b>SECTION 6 - INTERFACES ATTRIBUTE</b>  |   |                 |
| 1.15 <i>Technical Administration (System 7.0)</i>  | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 2. List any additional interfaces identified:  |   |                 |
| 3. Are there written procedures for the use of air carrier personnel in the application of these interfaces? | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 4. Are there controls to ensure that interfaces occur?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |
| 5. Are the interfaces between the ETOPS program and other processes treated consistently in the Manual(s)?   | <input type="checkbox"/> YES<br><input type="checkbox"/> NO | If no, explain: |